Test Series: September 2023

MOCK TEST PAPER –I

INTERMEDIATE: GROUP – I

PAPER – 3: COST AND MANAGEMENT ACCOUNTING

Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium. If a candidate has not opted for Hindi medium his/ her answer in Hindi will not be valued.

*Question No. **1** is compulsory.*

*Attempt any **four** questions from the remaining **five** questions.*

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. Answer the following:

(a) LK Ltd. has an annual fixed cost of ₹ 98,50,000. In the year 2022-23, sales amounted to ₹7,80,60,000 as compared to ₹5,93,10,000 in the preceding year 2021-22. Profit in the year 2022-23 is ₹37,50,000 more than that in 2021-22.

Required:

(i) CALCULATE Break-even sales of the company;

(ii) DETERMINE profit/ loss on a forecasted sales volume of ₹8,20,00,000.

(iii) If there is a reduction in selling price by 10% in the financial year 2022-23 and company desires to earn the same amount of profit as in 2021-22, COMPUTE the required sales amount?

(b) AT Ltd. manufactures machine parts used in industrial plants. As per market research it is expected that the annual demand for the parts will be 9,20,000 units. It is estimated that it costs ₹1.50 as inventory holding cost per unit per month and that the set-up cost per run is ₹ 3,500.

(i) DETERMINE the optimum run size for parts manufacturing?

(ii) Assuming that the company has a policy of manufacturing 40,000 parts per run, CALCULATE how much extra costs the company would be incurring as compared to the optimum run suggested in (i) above?

(c) Sky & Co., an unregistered supplier under GST, purchased material from Vye Ltd. which is registered under GST. The following information is available for one lot of 5,000 units of material purchased:

Listed price of one lot	₹ 2,50,000
Trade discount	@ 10% on listed price
CGST and SGST (Credit Not available)	12% (6% CGST + 6% SGST)
Cash discount	@ 10%
(Will be given only if payment is made within 30 days.)	
Toll Tax paid	₹ 5,000
Freight and Insurance	₹ 17,000
Demurrage paid to transporter	₹ 5,000

Commission and brokerage on purchases	₹ 10,000
Amount deposited for returnable containers	₹ 30,000
Amount of refund on returning the container	₹ 20,000
Other Expenses	@ 2% of total cost

20% of material shortage is due to normal reasons.

The payment to the supplier was made within 21 days of the purchases.

You are required to CALCULATE cost per unit of material purchased by Sky & Co.

(d) J Ltd. wants to ascertain the profit lost during the year 2022-23 due to increased labour turnover. For this purpose, they have given you the following information:

(1) Training period of the new recruits is 50,000 hours. During this period their productivity is 60% of the experienced workers. Time required by an experienced worker is 10 hours per unit.

(2) 20% of the output during training period was defective. Cost of rectification of a defective unit was ₹ 25.

(3) Potential productive hours lost due to delay in recruitment were 1,00,000 hours.

(4) Selling price per unit is ₹ 180 and P/V ratio is 20%.

(5) Settlement cost of the workers leaving the organization was ₹ 1,83,480.

(6) Recruitment cost was ₹ 1,56,340

(7) Training cost was ₹ 1,13,180

You are required to calculate the profit lost by the company due to increased labour turnover during the year 2022-23. **(4 × 5 Marks = 20 Marks)**

2. (a) A Ltd. mixes powdered ingredients in two different processes to produce one product. The output of Process- I becomes the input of Process-II and the output of Process-II is transferred to the Packing department.

From the information given below, you are required to PREPARE accounts for Process-I, Process-II and Abnormal loss/ gain A/c to record the transactions for the month of August 2023.

Process-I

Input:	
Material A	6,000 kilograms at ₹ 50 per kilogram
Material B	4,000 kilograms at ₹ 100 per kilogram
Labour	430 hours at ₹ 50 per hour
Normal loss	5% of inputs. Scrap is disposed off at ₹16 per kilogram
Output	9,200 kilograms.

There is no work-in-process at the beginning or end of the month.

Process-II

Input:	
Material C	6,600 kilograms at ₹ 125 per kilogram
Material D	4,200 kilograms at ₹ 75 per kilogram
Flavouring Essence	₹ 3,300

Labour	370 hours at ₹50 per hour
Normal loss	5% of inputs with no disposal value
Output	18,000 kilograms.

There is no work-in-process at the beginning of the month but 1,000 kilograms in process at the end of the month and estimated to be only 50% complete so far as labour and overhead were concerned.

Overhead of ₹ 92,000 incurred to be absorbed on the basis of labour hours. **(10 Marks)**

(b) PCP Limited belongs to the apparel industry. It specializes in the distribution of fashionable garments. It buys from the industry and resells the same to the following two different supermarkets:

(i) Supermarket A dealing in Adults' garments (Age group 15 - 30)

(ii) Supermarket B dealing in Kids' garments (Age group 5 - 10)

The following data for the month of April in respect of PCP Limited has been reported*:*

	Supermarket A (₹)	**Supermarket B (₹)**
Average revenue per delivery	1,69,950	57,750
Average cost of goods sold per delivery	1,65,000	55,000
Number of deliveries	660	1,650

In the past, PCP Limited has used gross margin percentage to evaluate the relative profitability of its supermarket segments.

The company plans to use activity –based costing for analysing the profitability of its supermarket segments.

The April month's operating costs (other than cost of goods sold) of PCP Limited are ₹ 16,55,995. These operating costs are assigned to five activity areas. The cost in each area and Activity analysis including cost driver for the month of April are as follows:

Activity Area	**Total costs (₹)**	**Cost Driver**
Store delivery	3,90,500	Store deliveries
Cartons dispatched to store	4,15,250	Cartons dispatched to a store per delivery
Shelf-stocking at customer store	64,845	Hours of shelf-stocking
Line-item ordering	3,45,400	Line-items per purchase order
Customer purchase order processing	4,40,000	Purchase orders by customers

Other data for the month of April include the following:

	Supermarket A	**Supermarket B**
Total number of store deliveries	1,100	2,805
Average number of cartons shipped per store delivery	250	50
Average number of hours of shelf-stocking per store delivery	6	1.5
Average number of line items per order	14	12
Total number of orders	770	1,980

Required:

(i) COMPUTE gross-margin percentage for each of its supermarket segments and compute PCP Limited's operating income.

(ii) COMPUTE the operating income of each supermarket segments using the activity-based costing information. **(10 Marks)**

3. (a) A company processes a raw material in its Department 1 to produce three products, viz. A, B and X at the same split-off stage. During a period 1,80,000 kgs of raw materials were processed in Department 1 at a total cost of ₹ 12,88,000 and the resultant output of A, B and X were 18,000 kgs, 10,000 kgs and 54,000 kgs respectively. A and B were further processed in Department 2 at a cost of ₹ 1,80,000 and ₹ 1,50,000 respectively.

X was further processed in Department 3 at a cost of ₹1,08,000. There is no waste in further processing. The details of sales affected during the period were as under:

	A	B	X
Quantity Sold (kgs.)	17,000	5,000	44,000
Sales Value (₹)	12,24,000	2,50,000	7,92,000

There were no opening stocks. If these products were sold at split-off stage, the selling prices of A, B and X would have been ₹ 50, ₹ 40 and ₹ 10 per kg respectively. Required:

(i) Prepare a statement showing the apportionment of joint costs to A, B and X.

(ii) Present a statement showing the cost per kg of each product indicating joint cost and further processing cost and total cost separately.

(iii) Prepare a statement showing the product wise and total profit for the period.

(iv) State with supporting calculations as to whether any or all the products should be further processed or not. **(10 Marks)**

(b) G Ltd. manufactures two products called 'M' and 'N'. Both products use a common raw material Z. The raw material Z is purchased @ ₹ 36 per kg from the market. The company has decided to review inventory management policies for the forthcoming year.

The following information has been extracted from departmental estimates for the year ended 31st March 2023 (the budget period):

	Product M	Product N
Sales (units)	28,000	13,000
Finished goods stock increase by year-end	320	160
Post-production rejection rate (%)	4	6
Material Z usage (per completed unit, net of wastage)	5 kg	6 kg
Material Z wastage (%)	10	5

Additional information:

- Usage of raw material Z is expected to be at a constant rate over the period.
- Annual cost of holding one unit of raw material in stock is 11% of the material cost.
- The cost of placing an order is ₹ 320 per order.
- The management of G Ltd. has decided that there should not be more than 40 orders in a year for the raw material Z.

Required:

(a) Prepare functional budgets for the year ended 31st March 2023 under the following headings:

(i) Production budget for Products M and N (in units).

(ii) Purchases budget for Material Z (in kgs and value).

(b) Calculate the Economic Order Quantity for Material Z (in kgs). **(10 Marks)**

4. (a) From the details furnished below you are required to COMPUTE a comprehensive machine-hour rate:

Original purchase price of the machine (subject to depreciation at 10% per annum on original cost)	₹ 6,48,000
Normal working hours for the month (The machine works for only 75% of normal capacity)	200 hours
Wages to Machine-man	₹ 400 per day (of 8 hours)
Wages to Helper (machine attendant)	₹ 275 per day (of 8 hours)
Power cost for the month for the time worked	₹ 65,000
Supervision charges apportioned for the machine centre for the month	₹ 18,000
Electricity & Lighting for the month	₹ 9,500
Repairs & maintenance (machine) including Consumable stores per month	₹ 17,500
Insurance of Plant & Building (apportioned) for the year	₹ 18,250
Other general expense per annum	₹ 17,500

The workers are paid a fixed Dearness allowance of ₹ 4,575 per month. Production bonus payable to workers in terms of an award is equal to 33.33% of basic wages and dearness allowance. Add 10% of the basic wage and dearness allowance against leave wages and holidays with pay to arrive at a comprehensive labour-wage for debit to production. [10 Marks]

(b) G Ltd. has the following expenditures for the year ended 31st March, 2023:

Sl. No.		Amount (₹)	Amount (₹)
(i)	Raw materials purchased		20,00,00,000
(ii)	Freight inward		22,41,200
(iii)	Wages paid to factory workers		58,40,000
(iv)	Royalty paid for production		3,45,200
(v)	Amount paid for power & fuel		9,24,000
(vi)	Job charges paid to job workers		16,24,000
(vii)	Stores and spares consumed		2,24,000
(viii)	Depreciation on office building		1,12,000
(ix)	Repairs & Maintenance paid for:		
	- Plant & Machinery	96,000	
	- Sales office building	36,000	1,32,000
(x)	Insurance premium paid for:		
	- Plant & Machinery	62,400	

	- Factory building	36,200	98,600
(xi)	Expenses paid for quality control check activities		39,200
(xii)	Research & development cost paid improvement in production process		36,400
(xiii)	Expenses paid for pollution control and engineering & maintenance		53,200
(xiv)	Salary paid to Sales & Marketing mangers:		20,24,000
(xv)	Salary paid to General Manager		25,12,000
(xvi)	Packing cost paid for:		
	- Primary packing necessary to maintain quality	1,92,000	
	- For re-distribution of finished goods	2,24,000	4,16,000
(xvii)	Performance bonus paid to sales staffs		7,20,000
(xviii)	Value of stock as on 1st April, 2022:		
	- Raw materials	36,00,000	
	- Work-in-process	18,40,000	
	- Finished goods	22,00,000	76,40,000
(xix)	Value of stock as on 31st March, 2023:		
	- Raw materials	19,20,000	
	- Work-in-process	17,40,000	
	- Finished goods	36,40,000	73,00,000

Amount realized by selling of scrap and waste generated during manufacturing process – ₹1,72,000/-

From the above data you are requested to PREPARE Statement of cost for G Ltd. for the year ended 31st March, 2023, showing (i) Prime cost, (ii) Factory cost, (iii) Cost of Production, (iv) Cost of goods sold and (v) Cost of sales. **(10 Marks)**

5. (a) A transport company has a fleet of three trucks of 10 tonnes capacity each plying in different directions for transport of customer's goods. The trucks run loaded with goods and return empty. The distance travelled, number of trips made and the load carried per day by each truck are as under:

Truck No.	One way Distance Km	No. of trips per day	Load carried per trip / day tonnes
1	16	4	6
2	40	2	9
3	30	3	12

The analysis of maintenance cost and the total distance travelled during the last two years is as under

Year	Total distance travelled	Maintenance Cost (₹)
1	1,60,200	46,050
2	1,56,700	45,175

The following are the details of expenses for the year under review:

Diesel	₹ 65 per litre. Each litre gives 4 km per litre of diesel on an average.
Driver's salary	₹ 24,000 per month
Licence and taxes	₹ 25,000 per annum per truck
Insurance	₹ 45,000 per annum for all the three vehicles
Purchase Price per truck	₹ 30,00,000, Life 10 years. Scrap value at the end of life is ₹ 1,00,000.
Oil and sundries	₹ 250 per 100 km run.
General Overhead	₹ 1,15,600 per annum

The vehicles operate 24 days per month on an average.

On the basis of commercial tone-km, you are required to:

(i) PREPARE an Annual Cost Statement covering the fleet of three vehicles.

(ii) CALCULATE the cost per km. run.

(iii) DETERMINE the freight rate per tonne km. to yield a profit of 10% on freight. **(10 Marks)**

(b) Essel Minerals Ltd. operates in iron ore mining through open cast mining method. Explosives and detonators are used for excavation of iron ores from the mines. The following are the details of standard quantity of explosives materials used for mining:

Particulars	Rate (₹)	Standard Qty. for Iron ore	Standard Qty. for Overburden (OB)
SME	40.00 per kg.	2.4 kg per tonne	1.9 kg per cubic- meter
Detonators	20.00 per piece	2 pcs per tonne	2 pcs per cubic- meter

The standard stripping ratio is 3:1 (means 3 cubic- meter of overburden soil to be removed to get one tonne of iron ore).

During the month of December 2021, the company produces 20,000 tonnes of iron ore and 58,000 cubic- meter of OB. The quantity of explosive materials used and paid for the month is as below:

Material	Quantity	Amount (₹)
SME	1,67,200 kg.	63,53,600
Detonators	1,18,400 pcs	24,27,200

Required:

(i) COMPUTE the material price variance

(ii) COMPUTE the material quantity variance

(iii) COMPUTE the material cost variance **(10 Marks)**

6. (a) EXPLAIN the difference between controllable & uncontrollable costs?

(b) DEFINE cost plus contract? STATE its advantages.

(c) "Is reconciliation of cost accounts and financial accounts necessary in case of integrated accounting system?" EXPLAIN.

(d) DISCUSS the impact of Information Technology in Cost Accounting. **(4 × 5 =20 Marks)**